

# **The Secretary's Council on Public Health Preparedness Update on SARS Research**

**Presentation by  
John R. La Montagne  
Deputy Director  
National Institute of Allergy and Infectious Diseases  
National Institutes of Health  
Bethesda, Maryland USA**



# Update on SARS Research

## Objectives

- To develop therapies to treat SARS
- To develop vaccines to prevent SARS
- To develop diagnostic tests



# Update on SARS Research

## Approaches

- **Characterize the SARS CoV**
- **Characterize the host response to infection**
- **Develop experimental models**
- **Expand communication about SARS**



# Update on SARS Research

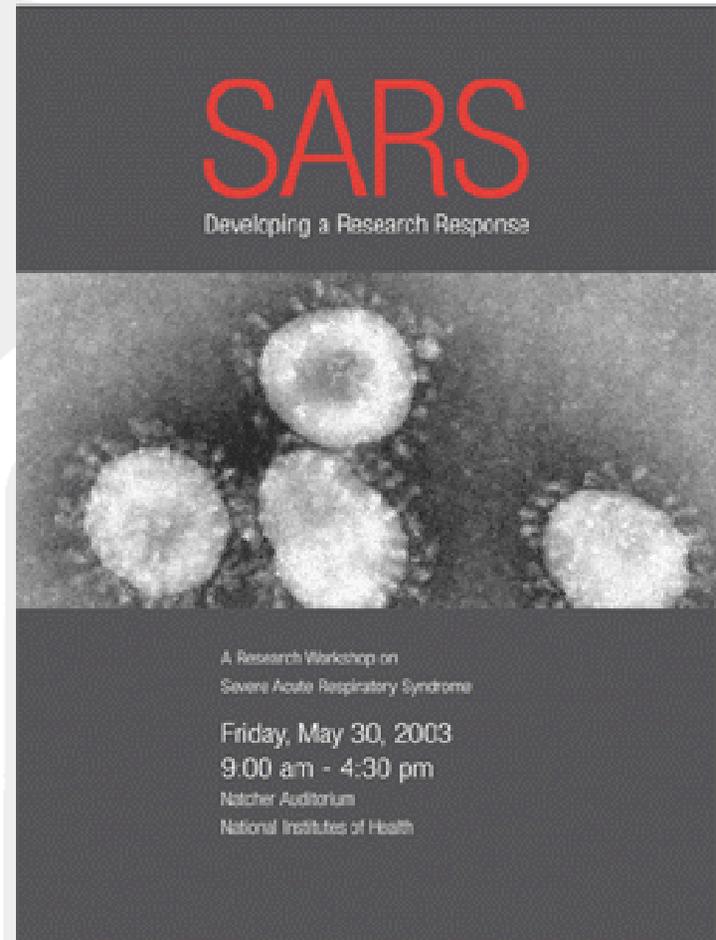
## Participating DHHS Agencies

- NIH
  - NIAID
  - Clinical Center
  - NHLBI
  - NLM/NCBI
- CDC
- FDA



# Update on SARS Research Activities to date

- **Sponsored International conference at NIH on May 30, 2003**
  - **500 + participants**
  - **Transmitted via Internet**
  - **Proceedings to be published**



# Update on SARS Research Activities to date

**Emerging Infectious Diseases** <http://www.niaid.nih.gov/dmid/sarsopps.htm>

## **Severe Acute Respiratory Syndrome (SARS) Funding Opportunities**

The Division of Microbiology and Infectious Diseases (DMID) offers a number of funding opportunities for researchers interested in SARS. Please refer to the list below for specific information.

- [NIH Small Research Grant Program \(R03\)](#)
- [Small Business Innovation Research \(SBIR\) and Small Business Technology Transfer \(STTR\) Grants](#)
- [SBIR Advanced Technology - NIAID \(SBIR-AT-NIAID\)](#)
- [Biodefense and Emerging Infectious Disease Research Opportunities \(R-Platform\) - Addendum to PA 03-080](#)
- [Biodefense Partnerships: Vaccines, Adjuvants, Therapeutics, Diagnostics and Resources](#)
- [Cooperative Research for the Development of Vaccines, Adjuvants, Therapeutics, Immunotherapeutics, and Diagnostics for Biodefense and SARS](#)
- [Biodefense Proteomics Research Programs: Identifying Targets for Therapeutic Interventions Using Proteomic Technology \(DMID-BAA-03-38\)](#)
- [NIAID offers "SARS" Chip free to Researchers](#)



# Update on SARS Research

## Activities to date



# NIAID NEWS

Office of  
Communications  
and Public Liaison

National Institute of Allergy and Infectious Diseases • National Institutes of Health

FOR IMMEDIATE RELEASE  
Monday, June 23, 2003

Laurie K. Doepel  
(301) 402-1663  
[doepel@nih.gov](mailto:doepel@nih.gov)

### **NIAID Offers “SARS Chip” Free to Researchers**

#### ***NIAID Partnership with TIGR and Affymetrix Catalyzes SARS Research***

To spur research on severe acute respiratory syndrome (SARS), the National Institute of Allergy and Infectious Diseases (NIAID) today announced a free distribution program for a new “SARS chip” that will enable researchers to rapidly detect tiny genetic variations among different SARS virus strains. Today’s announcement is the result of an alliance of government, not-for-profit and industry partners.



# **Update on SARS Research**

## **Activities to date - NIAID**

- **Division of Microbiology and Infectious Diseases**
  - **Published solicitations for research in all areas of SARS**
  - **Negotiated availability of VERO cells for use in SARS research**
  - **Initiated production of vaccine candidate antigens – SARS CoV glycoprotein**
  - **Initiated efforts to identify antiviral compounds**
    - **in collaboration with USAMRIID**
  - **Expanded research efforts on SARS in China**



# **Update on SARS Research Activities to date - NIAID**

## **Division of Intramural Research – Laboratory of Infectious Diseases**

- Initiated work on animal models – mouse and NHP**
- Initiated work on passive immunization**
- Initiated work on conventional killed, inactivated vaccine**



# Update on SARS Research Activities to date - NIAID

- Vaccine Research Center
  - Developed nucleic acid vaccine based on the glycoprotein gene. In collaboration with GenVec

**Vaccine Research Center** [http://www.niaid.nih.gov/vrc/scientificupdates\\_sars.htm](http://www.niaid.nih.gov/vrc/scientificupdates_sars.htm)

## **Scientific Updates**

### **SARS Vaccine Development**

In response to the recent global outbreak of SARS (Severe Acute Respiratory Syndrome), VRC Investigators quickly began working on the development of a potential vaccine. A Cooperative Research and Development Agreement and contract have been initiated with GenVec, Inc. GenVec will produce pre-clinical and clinical grade adenoviral vectors that express several SARS proteins. The VRC plans to evaluate the immunogenicity of these vectors preclinically, and will continue to develop and test adenovector-based vaccine candidates against SARS that are suitable for rapid advancement toward clinical trials.



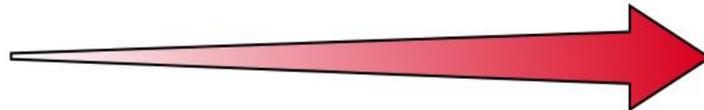
# NIAID Vaccine Research Center

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- 5-story state-of-the-art facility, opened fall 2000
- 170 employees
- Pilot lot plant
- HIV, smallpox, ebola and other HFVs, SARS, WNV
- >150 publications
- Close collaborations with clinical trials groups - HVTN, WRAIR, CDC

**Basic Research**



**Clinical Trials**

# **Update on SARS Research Activities to date - NIAID**

- **Office of the Clinical Director, in collaboration with the Critical Care Medicine Branch – Clinical Center**
  - **Developed clinical protocol to study patients with SARS at NIH**
  - **Objectives of study**
    - **Explore immune components of SARS**
    - **Study effectiveness of therapies including passive immunization and antiviral therapies.**



